

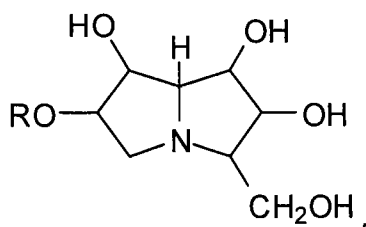
### CLAIM AMENDMENTS

This listing of claims will replace all prior versions and listings of claims in the application.

#### Claims:

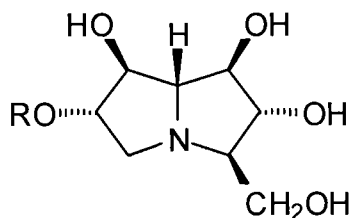
Claims 1-63 (canceled)

64. (New) A method of treatment of a disease or condition comprising administering to a patient in need of such treatment a therapeutically effective amount of a polyhydroxylated pyrrolizidine compound of formula:



or a pharmaceutically acceptable salt or acyl derivative thereof,  
wherein R is selected from the group comprising hydrogen, straight or branched, unsubstituted or substituted, saturated or unsaturated acyl, alkyl, alkenyl, alkynyl and aryl groups, and a saccharide moiety; and  
wherein said disease or condition is selected from a bacterial infection, a viral infection, lung cancer and breast cancer.

65. (New) A method according to claim 64 wherein the pyrrolizidine compound, salt or derivative has the formula:



wherein R is selected from the group comprising hydrogen, straight or branched, unsubstituted or substituted, saturated or unsaturated acyl, alkyl, alkenyl, alkynyl and aryl groups.

66. (New) A method according to claim 64 wherein the pyrrolizidine compound is an acyl derivative.

67. (New) A method according to claim 66 wherein the pyrrolizidine acyl derivative is acylated at C-6.

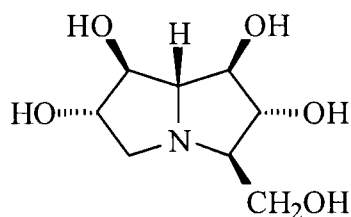
68. (New) A method according to claim 66 wherein the acyl derivative is an alkanoyl derivative selected from acetyl, propanoyl and butanoyl.

69. (New) A method according to claim 64 wherein R is a saccharide moiety.

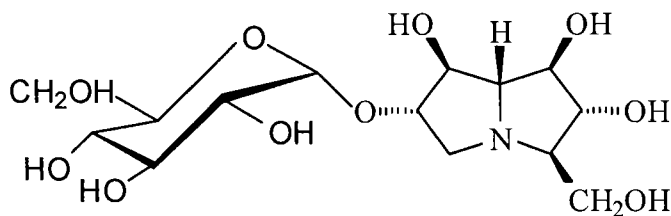
70. (New) A method according to claim 69 wherein the saccharide moiety is a glucoside or arabinoside moiety.

71. (New) A method according to claim 64 wherein the pyrrolizidine compound is chosen from:

- (a) 1R,2R,3R,6S,7S,7aR)-3-(hydroxymethyl)-1,2,6,7-tetrahydroxypyrrolizidine (casuarine), wherein R is hydrogen and having the formula:



- (b) a casuarine glycoside;  
(c) casuarine-6- $\alpha$ -D-glucoside of the formula:



- (d) 6-O-butanoylcasuarine;
- (e) 3,7-diepi-casuarine;
- (f) 7-epi-casuarine;
- (g) 3,6,7-triepi-casuarine;
- (h) 6,7-diepi-casuarine;
- (i) 3-epi-casuarine;
- (j) 3,7-diepi-casuarine-6- $\alpha$ -D-glucoside;
- (k) 7-epi-casuarine-6- $\alpha$ -D-glucoside;
- (l) 3,6,7-triepi-casuarine-6- $\alpha$ -D-glucoside;
- (m) 6,7-diepi-casuarine-6- $\alpha$ -D-glucoside;
- (n) 3-epi-casuarine-6- $\alpha$ -D-glucoside, and

a pharmaceutically acceptable salt or derivative of any of (a) – (n).

72. (New) A method according to claim 64 wherein said viral infection is selected from respiratory syncytial virus, hepatitis B virus, Epstein-Barr, Ebola virus, hepatitis C virus, herpes simplex type 1 and 2, herpes genitalis, herpes keratitis, herpes encephalitis, herpes zoster, human immunodeficiency virus (HIV), influenza A virus, hantann virus, human papilloma virus and measles.

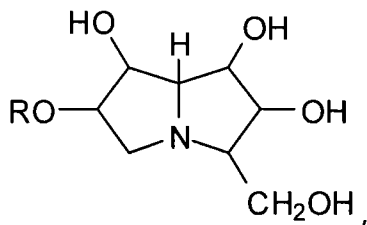
73. (New) A method according to claim 64 wherein said bacterial infection is caused by bacteria selected from *Bacillus*, *Escherichia* and *Francisella*.

74. (New) A method according to claim 64 wherein said polyhydroxylated pyrrolizidine compound is derived from one or more plant species sources selected from:

- (a) a member of the taxon Myrtaceae; and
- (b) a member of the taxon Casuarinaceae.

75. (New) A method of treatment of a disease or condition selected from a bacterial infection, a viral infection, lung cancer and breast cancer, said method comprising administering to a

patient in need of such treatment a therapeutically effective amount of a composition containing a pharmaceutically acceptable excipient and a polyhydroxylated pyrrolizidine compound of formula:



or a pharmaceutically acceptable salt or acyl derivative thereof,  
wherein R is selected from the group comprising hydrogen, straight or branched, unsubstituted or substituted, saturated or unsaturated acyl, alkyl, alkenyl, alkynyl and aryl groups, and a saccharide moiety.